



Zayo's Response to Ofcom's Consultation on Duct and Pole Access Remedies

Introduction

Zayo Group is a global provider of communications infrastructure services, including dark fibre, wavelength, Ethernet and IP services. Zayo operates in the United States, Canada, France, Germany, Netherlands, Belgium, Switzerland, Italy, Ireland, and the United Kingdom. Zayo was founded in 2007 and is headquartered in Boulder, Colorado, with European headquarters in London and Paris.

Zayo is investing approximately [X] across its European footprint, of which a material proportion is planned for the UK.

Zayo's UK network spans more than 450,000km of fibre and connects over 130 data centres, including via unique routes alongside the national gas pipeline and within London's sewer system. Zayo provides customers with dedicated fibre connections utilising a combination of on-net and leased fibre. We extend our network out to customer premises with a combination of purchased Ethernet services and dark fibre as well as self-installed new-build fibre cable.

The ability to use existing ducts to extend our fibre network to customer termination points would provide Zayo with greater flexibility and the possibility of considerable cost savings and efficiency gains. Self-built network extensions can comprise up to 90% of the cost of a customer circuit which is otherwise on-net, despite representing a very small proportion of the overall length of the circuit.

However, PIA is not currently available to Zayo because of the restrictions placed on its use by Openreach and Ofcom. This means that we cannot compete on a level playing field with Openreach and we continue to face high construction costs in order to extend our fibre footprint.

The requirement that a purchaser of PIA must use it to deploy broadband as well as non-broadband services is anti-competitive, unworkable and creates an unacceptable level of regulatory uncertainty. Ofcom's proposed "mixed usage" requirement would do nothing to improve the situation for Zayo, as Zayo operates purely at the B2B network, providing services to enterprises and ISPs.

Where a passive remedy such as duct access can be used as an upstream input into several downstream products, permitting its use only in one market in which a competition problem is identified is not appropriate. Regulation cannot be conducted in a theoretical vacuum which ignores commercial realities. It is neither rational nor reasonable to prescribe usage for underlying passive network elements.

Responses to Ofcom's questions

Question 4.1: Do you agree with our proposals for a specific access obligation, which includes an obligation on BT to make adjustments to its physical infrastructure when its network is congested? Please provide reasons and evidence in support of your views.

Ofcom has expressed the view, with which Zayo concurs, that “there are significant benefits to consumers from competition based on rivals investing in their own networks, compared to competition based on regulated access to BT’s network and services.” We also agree with Ofcom’s assessment that “BT’s ability to reuse this legacy infrastructure, much of which predates market liberalisation, gives it a significant advantage over its competitors.”¹

We therefore agree with Ofcom’s proposal to continue to impose a specific network access remedy in the form of PIA.

In many instances, Zayo needs to install fibre network extensions in places where there is existing duct in place. The ability to access this duct would reduce the overall cost of circuit provision, ultimately lowering the cost to consumers.

We strongly agree that, in order for PIA to be effective and usable at scale, Openreach must be required to relieve congested sections of physical infrastructure. In the absence of such an obligation, the cost of deployment would escalate to levels similar to those of full civil works.

Question 4.2: Do you agree with our proposals on the scope of PIA: (1) To broaden usage through a mixed usage generic rule; (2) To modify the PIA condition to define geographic scope by reference to telecoms providers’ local access networks. Please provide reasons and evidence in support of your views.

Restrictions on Use

The PIA remedy is currently limited to the deployment of broadband access networks serving multiple premises, which precludes use for the provision of symmetric-speed point-to-point leased lines.

We strongly disagree with the proposed “mixed usage” rule. We believe this is anti-competitive, discriminatory, unworkable and creates an unacceptable level of regulatory uncertainty. In order to be effective and to encourage investment, the PIA remedy must not contain any restrictions on use.

By reviewing the wholesale local access and business connectivity markets separately, Ofcom is failing adequately to address the need to facilitate and encourage investment in competing fibre infrastructure. Attempting to regulate individual markets in silos plays into the hands of the incumbent and fails to provide incentives to invest in networks. Ofcom should be reviewing the WLA market and the leased lines markets together and regulating access to the underlying networks in a service-neutral way.

Economies of Scope

Ofcom acknowledges in a footnote to this consultation that “leased lines are used for backhaul to mobile masts. These are increasingly located in residential areas in order to meet the rapidly increasing data demand of mobile smartphone users. Point-to-point fibre leased lines are also likely to be increasingly prevalent in the future to provide connectivity for 4G and 5G technologies.”

¹ DPA consultation, paragraphs 4.2 and 4.3

However, the analysis of residential versus non-residential premises referred to by Ofcom in paragraph 4.67 onwards appears to make no allowance for the hundreds of thousands of small cells that will be required for 4G network densification and for 5G. Such network densification is being planned by MNOs and other wireless providers now, and will be required during the period of this market review.

In February 2017 the National Infrastructure Commission expressed the view that:

“Ensuring that best use is made of the existing infrastructure, such as masts, poles, ducts power supplies and the fibre network alongside our motorways [and railways], so that it can be used to support the backhaul of mobile data will be essential.”²

The Government responded that “Where telecoms regulation is identified as a potential barrier, it will involve Ofcom in discussions as appropriate to determine how best to deliver the Government’s coverage objectives.”³

In our view, the “mixed usage” rule is an example of where Ofcom’s regulation is acting as a barrier to investment and we urge Ofcom to rethink its approach.

The NIC went on to say:

“Ofcom’s proposals around duct and poles access are likely to be important to enabling the necessary fibre to be provided for small cell deployments. ... Suitable arrangements amongst operators in terms of fibre and duct access flexibility, maintenance, sharing of contractual obligations and future deployment will also be necessary. In the coming years, a new challenge will be the extension of fibre and connecting cells into non-typical locations, such as street furniture, so that operators can roll out new sites in a cost effective and timely manner.”⁴

At present there is no DPA remedy in the business connectivity market, despite BT having been found to be dominant in that market. We believe it is unacceptable for Ofcom to continue to review the WLA markets and business connectivity markets separately.

The French National Regulatory Authority, ARCEP, reviews the markets for Wholesale Local Access (Market 3a) and “High Quality” access (Market 4, which Ofcom refers to as the Business Connectivity market) together⁵. ARCEP’s view has been that the underlying wholesale products cannot be separated between business and residential markets and that the evolution of the market requires a holistic approach to regulation.

Networks are converging – not only residential and business networks and services, but fixed and mobile networks. Ultimately, all networks are fibre in the core and wireless at the edge. Ofcom’s regulatory framework has not kept pace with this evolution.

In its 5G Strategy Paper published in March 2017, the Government highlighted the need for dense fibre networks to provide backhaul for the thousands of small cells that will need to be deployed to provide 4G and 5G infrastructure. The paper states the following:

² The National Infrastructure Commission, “Connected Future”, February 2017, Recommendation 2 and 3

³ “Next Generation Mobile Technologies: A 5G Strategy for the UK”, Annex

⁴ Connected Future, paragraph 2.44 and 2.45

⁵ https://www.arcep.fr/uploads/tx_gspublication/bilan_et_perspectives-ADM-HD_THD-juil2016.pdf

“It is clear that in any scenario, 5G will need large amounts of fibre connections for mobile backhaul. Although in more remote areas it is possible to use fixed wireless links for backhaul, the need to transport the higher rates of data possible over 5G will make access to fibre a vital element of 5G rollout, particularly for smaller, high-capacity cells. This will go hand-in-hand with the growth of full-fibre networks.

The bulk of the investment required for both fibre and 5G roll-out will come from the private sector. The Government is supporting fibre roll-out through a number of initiatives, including:

- the 100% business rate relief for new full-fibre infrastructure for a five year period announced at Autumn Statement 2016; and
- the £400 million Digital Infrastructure Investment Fund which will make available much needed finance to smaller fibre network providers.

Starting in 2017, the Government will invest £200 million to fund a programme of local projects to test ways to accelerate market delivery of new full-fibre broadband networks. This programme will make better connections available to business and residential premises across the UK and help to deliver fibre connections that will support 5G.

The Government’s full-fibre and 5G programmes will help to develop our understanding of how these technologies will be brought together and the challenges around the fibre that will be required. The Government recognises that having access to fibre is a critical limiting factor in the deployment of 5G and will continue to drive the deployment of new fibre networks. ***We will also work with Ofcom to ensure that operators can get fair access to fibre on reasonable terms and explore the scope for a duct and pole access remedy as part of the next Business Connectivity Market Review, for the purposes of supporting 5G deployment.***

The Government will work with Ofcom to identify and tackle unnecessary barriers to infrastructure sharing and will explore the potential for a clearer and more robust framework for sharing, while preserving investment incentives.”⁶

It is not acceptable to wait until the conclusion of the next BCMR to put these measures in place. We urge Ofcom to include the business connectivity market in this current review when applying passive remedies.

The Institution of Engineering and Technology has also recently highlighted the importance of fibre backhaul for 5G.

“The deployment of 5G is critically dependent on fibre backhaul from base-stations (both macro sites and small-cells). When a 5G small cell can support speeds of hundreds of Mbit/s or even Gbit/s per user it is obvious that the backhaul network needs to have sufficient bandwidth (combined with low-latency and reliability) so as not to compromise performance. Pervasive fibre plays a central role in 5G. ...The expensive part is getting the fibre into the ground (or overhead). The civil engineering costs often constitute at least 80% of the cost. ...

FTTH technology is not just about consumer broadband. It can be used to connect businesses and for mobile backhaul. The industry focus on the mobile backhaul use-case has grown with the advent of 5G due to the increased densification arising from small-cell at 3.6 GHz and 26GHz. Hence a common fibre access infrastructure can serve consumer, business and mobile

⁶ “Next Generation Mobile Technologies: A 5G Strategy for the UK”. DCMS and HMT, March 2017

backhaul markets. The fibre access network architecture is “adaptable” to new use-cases and business models (including wholesale and sharing) and hence is future proof beyond just bandwidth. ...

Point-to-point fibre leased lines have the technical merits of FTTH but the associated network architecture is too expensive to be viable for a mass densification of 5G small cells. FTTH technologies such as the Passive Optical Network family of standards can now deliver high capacity virtual leased lines over the same physical fibre infrastructure used for consumer and business broadband. Hence there are economies of scale (such as for the customer equipment, network operations costs etc.) from having a common FTTH architecture addressing multiple market segments within a geographic area.

Without access to low cost fibre backhaul where it is needed, when it is needed and at the price that is needed, the viability of extending 5G dense small cell networks pervasively across all cities and towns is problematic. More generally access to ducts and poles will be key to building fibre networks cost-effectively to reduce dig costs (which can easily be ~80% of the cost).

The approach to solving this issue that has been most discussed is PASSIVE network sharing. Ofcom has progressed regulation of Passive Infrastructure Access and Dark Fibre access with BT. However, the impact of 5G calls into question the siloed market review approach taken to regulation and whether this should just apply to BT and just to network operators but to all public utilities. ***The “access seeker” is prohibited from using Passive Infrastructure Access for mobile backhaul (or business access connectivity) for example. This may no longer make sense from an engineering or business case perspective in a 5G era when seeking to construct a common fibre network to serve consumers, businesses and 5G backhaul. Constructing independent parallel networks to serve different market segments is obviously inefficient and impractical. There is a case to be made for exploring a new more holistic approach with no usage restrictions on operators seeking to use Passive Infrastructure Access for 5G backhaul.*** There may be other alternative solutions from incumbent fixed wireline operators that also merit being explored.

Recommendation

The Passive Infrastructure Access issue (ducts, poles etc) is complex, likely to be controversial but must be tackled by the Government and Ofcom to deliver the benefits of 5G to the largest number of consumers. The focus needs to be widened to include all public utility facility owners.”⁷

The statements above from the NIC, DCMS, HMT and the IET all make clear that, from the point of view of the UK’s infrastructure needs and public policy, barriers to fibre deployment must be minimised, including the removal of restrictions on use of DPA.

Ofcom’s principle justification for permitting restrictions on use is that “in the absence of usage restrictions, there is a risk that some telecoms providers might use PIA only to build a limited number of high value point-to-point leased lines connections. Since such services are not part of the WLA market, or downstream from the WLA market, this would not promote greater network competition in accordance with our aims, and would not be consistent with PIA as a remedy in the WLA market.”

⁷ IET, “5G Networks for Policy Makers”, Sections 12.1 and 12.2

Article 8 of the Framework Directive requires the NRA to put in place measures which are aimed at, and proportionate to, achieving the objectives set out in the Directive. These objectives include:

- Promoting competition in the provision of electronic communications networks and services by (inter alia):
 - Ensuring that there is no distortion of competition in the sector;
 - Encouraging efficient investment in infrastructure
- Contributing to the development of the internal market by:
 - Removing remaining obstacles to the provision of electronic communications networks;
 - Ensuring that there is no discrimination in the treatment of undertakings providing electronic communications networks and services

Distortion of Competition

By allowing Openreach to place restrictions on the use of ducts which it does not face itself, Ofcom is permitting a distortion of competition between Openreach and other operators.

Encouraging Efficient Investment

It is not rational for companies to invest in fibre networks that cannot maximise their return on investment by availing themselves of all revenue-generating opportunities.

Removing obstacles to the provision of electronic communications networks

Restrictions on PIA use are a clear barrier to investment. Both operators and policy-makers have urged Ofcom to remove this obstacle, as other national regulatory authorities have done.

Discrimination in the treatment of Undertakings

The restrictions on use clearly amount to discrimination against operators as Openreach does not face the same restrictions.

We note that the Commission's guidance is that different remedies are to be used to address different identified problems and that remedies should be tailored to specified problems. However, this does not preclude remedies being used across markets, especially where, in the case of the WLA market and the leased lines market, competitive problems and BT dominance have been identified in each.

The French Conseil de la Concurrence has expressed the view that the purpose of *ex ante* regulation is not simply to allow competition and choice in the provision of services, but also to encourage investment in competing infrastructures. This overriding objective, in the view of that competition authority, justifies the imposition of remedies which go further than simply addressing SMP to achieve those objectives.⁸

These sentiments are echoed by BEREC, the Body of European Regulators, in the package of papers it published on June 7th, which criticise the European Commission's proposals for a revised regulatory Framework.⁹ BEREC states:

⁸ Conseil de la Concurrence, Avis n° 08-A-09, 5 June 2008, paragraph 32

<http://www.autoritedelaconcurrence.fr/pdf/avis/08a09.pdf>

⁹ http://www.berec.europa.eu/eng/document_register/subject_matter/berec/press_releases/7090-updated-press-release-on-berec-papers-on-the-review

“The Commission is proposing to qualify the principle of proportionality described in Article 3(3)(f) by prescribing that regulation should only be imposed to secure competition “on the retail market concerned”. It is already clear in Article 65(4) that NRAs should impose SMP obligations where they consider that one or more retail markets would not be effectively competitive in the absence of those obligations. In Article 66(4), it is clear that SMP obligations imposed must be based BoR (17) 85 4 on the nature of the problem identified, with the ultimate aim always being optimizing retail outcomes in the long term.

However, the newly proposed qualification goes significantly beyond this and would risk precluding NRAs from imposing SMP remedies to address competition problems in relevant wholesale markets which cannot necessarily be easily demonstrated to offer a proportionate contribution to competition in the relevant downstream retail markets. The design of wholesale remedies frequently involves a large number of detailed regulations to ensure interventions address the competition problem identified. Indeed, the simplistic drafting in Article 3(3) overlooks the complexity of the relationship between wholesale and retail markets – the use of the singular (“the market concerned”) does not take into account the fact that in many cases a wholesale market can provide upstream inputs for a variety of retail markets, as acknowledged by the Commission in Recital 157. This qualification is therefore ill-judged.

Risk to BT’s cost recovery from relaxing usage restrictions.

Annex 5 provides an analysis of the potential adverse effects of relaxing usage restrictions of the PIA remedy on BT’s ability to recover costs from regulated services in the business connectivity markets.

Ofcom acknowledges that “Limiting the scope of the PIA remedy removes the ability of telecoms providers to exploit the economies of scope possible from deploying and providing multiple services jointly on a single network”. When considering the benefits that might arise from economies of scope, Ofcom has analysed the overlap between residential and non-residential premises. However, Ofcom appears not to have considered the deployment of fibre to mobile macro and small-cell base stations.

As mentioned above, the thousands of small cells that will be required for 4G and 5G will require a capillary network of fibre, the provision of which will be incremental to the current leased lines estate. There is therefore little risk of cannibalisation of BT revenues so as to threaten Openreach’s ability to recover its costs.

Ofcom is concerned that relaxing usage restrictions on PIA would likely increase competitive pressure on Openreach’s leased lines products, thus affecting Openreach’s ability to recover its costs from regulated products. However, Ofcom has failed to take into account the incremental revenues Openreach will receive from an overall growth in the fibre market caused by the requirement for small cell network densification and the requirement to backhaul high bandwidth mobile services.

Ofcom acknowledges that its assessment of the impact on BT’s cost recovery does not take into account the fact that income from the purchase of the PIA product would to some degree compensate for revenues lost from leased lines sales.¹⁰ We note that BT deployed similar arguments when attempting to resist a regulatory requirement to offer wholesale interconnect services to CPs in the mid 1990s. BT considered only the loss of retail revenue. It failed to account for the fact that the overall market for electronic communications services would grow, thus enabling it to recover its costs, as has been demonstrated.

¹⁰ Annex 5 paragraph A5.21.1

Geographic Reach

Ofcom proposes to limit usage of PIA to local access network deployments and to permit its use between network termination points (i.e. customers' premises) and the local access node serving those network termination points. Ofcom emphasises that there will be no requirement for telecoms providers to be bound to BT's topology. However, we think that this restriction on use will render the product useless for most operators. Modern fibre networks are not bound by local access "hub and spoke" or "trunk and branch" designs. Nor is fibre limited by distance in the way that copper is. The need to aggregate locally is diminished. Networks can be built in rings or ribbons. In terms of access and backhaul, most of the network will effectively constitute backhaul.

"Backhaul" can, however, be distinguished from "backbone" or core networks. Routes between major cities are clearly "backbone", for which PIA is not necessary or appropriate. But PIA is essential for backhaul.

By definition, any network connecting wireless cells constitutes backhaul, since it is backhauling wireless traffic aggregated at the cell or base station. It is not acceptable, given overall Government policy, that PIA would not be available for the deployment of dense fibre networks connecting 4G and 5G base stations.

Restrictions on Use are Unworkable in Practice

Ofcom proposes to relax the current PIA usage restriction to allow 'mixed usage' so that PIA can be used to deploy local access networks offering both broadband and non-broadband services provided the purpose of the network deployment is primarily the delivery of broadband services to homes and businesses provided this mixed use enables the investment in the provision of broadband services more generally.

How will Openreach assess compliance with the mixed usage rule?

Under Ofcom's proposals, Openreach has the right to refuse a request for access on the grounds of non-compliance with the mixed usage rule, if it provides reasons for its refusal. This is unworkable, as Openreach will not be in a position to judge whether or not the CP will comply with the rule, without access to the CP's business plans.

What constitutes a "deployment"?

As Ofcom acknowledges, "there is potentially a very wide range of cases involving different network designs and different types of network provider". Ofcom considers that Openreach should take into account the services to be offered "within any deployment". An operator may have network installed throughout a city, town or village, and may require duct or pole access to supplement their own infrastructure. How would Openreach apply the mixed usage rule in such a case?

How should CPs demonstrate a "commitment to broadband deployment"

Ofcom states: "The potential for phased service deployment may therefore require determining the commitment of the telecoms provider to deploy broadband services. For example, contracts in place with residential developers for broadband services, or committed funding and orders for equipment only suited for broadband services would evidence significant intention."¹¹ It is clearly not possible or

¹¹ Paragraph 4.91.4

desirable for commercial reasons for CPs to be sharing details of contracts with their suppliers and customers with Openreach. We find it extraordinary that Ofcom would suggest this.

Ofcom also suggests that Openreach should take into account “the type of customers being targeted and the type of services being sold”.¹² How would Openreach know this for new deployments without advance knowledge of the CP’s marketing strategy or business plan?

Networks deployed initially for the benefit of a B2B customer such as to connect street furniture hosting small cells, could subsequently be used as a spine from which residential connections could spur. As Ofcom acknowledges, enterprise or public sector customers are likely to drive the initial investment, and residential customers can then follow. But they will be unable to follow if the initial investment is prevented by regulatory restrictions.

Ofcom suggests as follows:

“Ultimately PIA is ordered on an individual segment by segment basis and it would not be practicable to assess what each individual segment is being used for. Therefore, in the event of a dispute, we would expect to consider the above features applied across the local area, looking holistically at the network deployment in the local access area. In the case of a hybrid network deployment, where PIA is only used for some segments of an overall network design while the rest of the network infrastructure is self-built, we would expect to take a similar holistic approach.”

Yet how would Openreach ascertain the location and application of a CP’s self-built network? Such information is not normally in the public domain and can only be estimated from public advertising campaigns. Some ISPs mainly utilise direct marketing techniques.

Regarding the sharing of commercially sensitive information Ofcom states: “we do not propose that telecoms providers would be compelled to provide any information to Openreach beyond the details of the duct and poles they are seeking access to”. This would appear to be contradictory to the guidance which precedes this statement.

Question 5.1: Do you agree with our proposed imposition of a no undue discrimination SMP condition on BT? Please provide reasons and evidence in support of your views.

Ofcom characterises the problem as follows:

“The identified competition problem means that ensuring a level playing field in *downstream markets* is necessary to ensure an effective PIA remedy. This is because without a level playing field BT could engage in practices that could distort downstream competition, including providing access, but on less favourable terms compared to those obtained by its own *downstream businesses*.”¹³

However, Operators who install fibre in Openreach ducts are competing with *Openreach*, not with BT’s downstream divisions.

Ofcom’s stated aim is to encourage network competition and “to make it easier for telecoms providers to invest in advanced, competing infrastructure by improving duct and pole access”¹⁴. In order to be

¹² Paragraph 4.91.5

¹³ Paragraph 5.24

¹⁴ Supporting investment in ultrafast broadband networks, Ofcom, July 2016, paragraph 1.5

able to compete with BT Group, as a vertically integrated operator, the principle of equivalence needs to be applied to the ability to earn a return on investment in fibre. Openreach does not face restrictions on the use to which it puts fibre occupying its ducts. Therefore, Openreach's competitors must not face restrictions either.

Equivalence of input must be applied to at least some of BT/ Openreach's forward looking downstream products, including G.Fast, FTTP and Dark Fibre Access. If purchasers of PIA are subject to restrictions on use which do not apply to these downstream products, then Openreach will be at a competitive advantage to purchasers of PIA when selling products for which duct access is a component element.

The application of non-discrimination principles over-simplifies the competitive environment and assumes a reseller model, rather than a model of competing infrastructures. Any non-discrimination provision will be ineffective whilst restrictions on use remain.

Question 6.1: Do you agree with our proposed approach to the processes and systems relating to planning and surveying? Please provide reasons and evidence in support of your views.

We agree with Ofcom's proposal to require Openreach to provide network records in digital format, suitable for GIS planning tools and that information provided should be at a sufficiently granular level.

We welcome the requirement that Openreach's network records should include information relating to significant new infrastructure construction, as soon as it is available to Openreach itself for planning its own network deployment. It is important that this includes all new build, not just that for housing developments.

We agree with the proposal that the reference offer should include:

- arrangements for relieving congested Physical Infrastructure, including the repair of existing faulty infrastructure and the construction of new Physical Infrastructure; and
- the information that a Third Party is required to provide to BT where that Third Party is requesting the repair of existing faulty infrastructure and/or the construction of new Physical Infrastructure; and
- Service Level Commitments and Service Level Guarantees in relation to the timescales for BT to respond to a request by a Third Party to relieve congested Physical Infrastructure other than a congested Pole, where such a response confirms that the order has been accepted and includes how BT proposes to relieve that congestion.

Ofcom proposes to incentivise Openreach to complete build works in reasonable timescales and with more certainty for telecoms providers in two ways:

- Through a pricing mechanism and, in particular, the point from when Openreach is able to commence rental charges (subject to a limit on the size of the order).
- Through the introduction of SLAs and SLGs.

Zayo's view is that the pricing mechanism will be an insufficient incentive and that only SLAs and SLGs are likely to have a material effect on Openreach behaviour.

We agree with Ofcom's proposal to require that the PIA Reference Offer includes a requirement on Openreach to establish SLAs and SLGs relating to the completion of planned build works following a PIA order.

Question 7.1: Do you agree with our proposed form of price regulation for PIA rental and ancillary charges? Please provide reasons and evidence in support of your views.

Under the current PIA remedy, rental and ancillary charges are subject to a 'basis of charges' condition which requires that prices are reasonably derived from the costs of provision based on a forward looking long run incremental cost approach, allowing an appropriate mark up for the recovery of common costs, including an appropriate return on capital employed.

PIA should be priced in a way that ensures stable and predictable prices over time. We agree with Ofcom that the current basis of charges condition on rental charges does not provide sufficient certainty for investors in infrastructure and that a cap on PIA rental charges is required.